



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,745	10/29/2003	Yoshihide Kuroki	074913.0107	5424

24735 7590 04/06/2004

BAKER BOTTS LLP
C/O INTELLECTUAL PROPERTY DEPARTMENT
THE WARNER, SUITE 1300
1299 PENNSYLVANIA AVE, NW
WASHINGTON, DC 20004-2400

EXAMINER

ZARROLI, MICHAEL C

ART UNIT PAPER NUMBER

2839

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/694,745	Applicant(s) KUROKI ET AL.	
	Examiner Michael C. Zarroli	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities: In the Brief Description of the Drawings section the examiner takes issue with the description of figure 5D. The component described does not look like a connector (79). This component looks like some kind of shell or hood for a connector.

Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 83 hood. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the hood **covering** the connector body and shell must be shown or the feature(s) canceled

from the claim(s). No new matter should be entered. Only a small portion of the shell is covered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Regarding claim 6 it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). Therefore, no patentable weight has been given to this claim.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1-11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1;

- The phrase “being a contact pitch direction of the connector” is not understood. The examiner will interpret this to mean that the contacts are at a certain pitch and arrayed in a direction different than the fitting direction.
- The phrase “in an axial direction of the contact” is not understood. The examiner will interpret this to mean that the terminal portion projects from the insulator in the same direction as the rest of the contact, no bending.
- In the last two lines, the phrase “connecting portion being formed obliquely in said contact pitch direction” is not understood. The connecting portion of the terminal portion is oblique but from what? Fortunately, figure 4A is helpful in understanding what the applicant is trying to claim. The examiner will interpret this claim to mean what is shown in figure 4A.

Regarding claim 7, what is a “in said contact **pitch** direction?” The examiner will interpret this phrase to mean --formed obliquely **from** said contact pitch direction--.

Regarding claims 2 and 8, the examiner feels the phrase “formed zigzag” isn’t accurate and should be changed. Looking at figures 4C and 4D, they don’t look like a zigzag formation. Maybe something like alternating, staggered and/or upper and lower should be used.

Regarding claims 4-5 and, 10-11, the examiner cannot envision all the directions recited. How is the thickness different than the width? Are the three directions to correspond to the three parts of the contact namely, the contact portion, retention portion and, terminal portion? The second direction as recited in claim 7 is the arrayed direction, so how can this direction be the same as the contact width? The examiner can only interpret these claims to mean what is shown in the figures 4C and 4D.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country, in public use, or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 7-8 (as best understood) rejected under 35 U.S.C. 102(b) as being anticipated by O’Sullivan (US 6217374).

O'Sullivan discloses an electrical connector member comprising a plurality of contacts (24) arrayed in a contact pitch direction being a second direction crossing a first direction being a fitting direction (fig. 1), and an insulator (60) fixedly retaining said contacts, each of said contacts comprising a contact portion (24A, B, C) to be connected to the counterpart connector, a retention portion (unnumbered fig. 7) retained by said insulator, and a terminal portion (36A, B, C) to be connected with a cable or a lead wire (70, 71), said terminal portion comprising a connecting portion to which said cable or lead wire is soldered (fig. 13), and is projected from said insulator in an axial direction of the contact (fig. 6), said connecting portion being formed obliquely in said contact pitch direction (between figures 2 & 3).

Regarding claim 8 O'Sullivan discloses that the connecting portions are formed zigzag (fig. 3).

Claim Rejections - 35 USC § 103

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-3 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Ozai in view of Wu and further in view of admitted art.

Ozai a plug connector (1) comprising a plug connector body to be fitted to a counterpart connector in a first direction (fig. 1 right to left), a shell (2) covering at least one surface of said plug connector body, and a hood (unnumbered fig. 1) covering said plug connector body along with said shell while exposing one end side thereof in said first direction, said plug connector body comprising a plurality of contacts (4) arrayed in a second direction (fig. 3) and crossing said first direction, and an insulator (3) fixedly retaining said contacts (fig. 2), each of said contacts comprising a contact portion (fig. 1 at 4) to be connected to the

counterpart connector, a retention portion retained by said insulator (fig. 2 at and inside 3), and a terminal portion (fig. 4 bottom half) to be connected with a cable or a lead wire (7); said terminal portion comprising a connecting portion to which said cable or lead wire is connected (fig. 2), and is projected from said insulator in an axial direction of the contact.

Ozai does not disclose that said connecting portion is formed obliquely in said contact pitch direction.

Wu discloses a connecting portion formed obliquely in a contact pitch direction (fig. 7).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to obliquely arrange the contacts of Ozai as taught by Wu. The motivation/suggestion for doing so would have been to allow for greater contact density (Wu col. 1 lines 42-44).

Neither Ozai nor Wu disclose that the connecting portion is soldered to the wire. The applicant has specifically indicated on page 1 (about line 11) of the specification that soldering a connecting portion to a wire is known.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use soldering to affix the Ozai/Wu connecting portion with the wire as is well known in the art. The motivation/suggestion for doing so

would have been to use a tried and true method to make the connecting thereby reducing manufacturing costs.

Regarding claim 2 Wu discloses that said connecting portions are formed zigzag in said contact pitch direction (fig.).

Regarding claim 3 Wu discloses that said connecting portions are oriented in the same direction inclined at substantially 45 degrees relative to said contact pitch direction (figures 4 & 7).

13. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over

O'Sullivan as applied to claim 7 above, and further in view of Lai.

O'Sullivan discloses that the connecting portions are oriented in a 45 degree angle relative to a second direction.

Lai discloses connecting portions (25) oriented in a 45-degree angle (figures 3 & 4).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to slant the connecting portions of O'Sullivan at a 45 degree angle as taught by Lai. The motivation/suggestion for doing so would have been to save lateral housing space (Lai col. 1 lines 52-55).

Allowable Subject Matter

14. Claims 4-5 and 10-11 **might** be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The examiner is only dimly sure what the applicant is trying to claim in these claims. Consequently, no reasons for allowable matter can be given surrounding these claims.

Conclusion

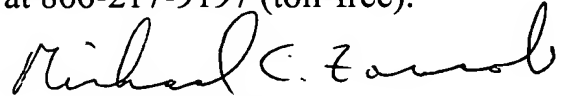
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed on the PTO-892 teach plug connectors with contacts having a contact portion, retention portion, terminal portion and connecting portion.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Feild can be reached on (571) 272-2800 ext 39. The

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Zarroli
Primary Examiner
Art Unit 2839

MCZ
MCZ